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**Practical 03 – CS102.3**

**Question 1**

#include <stdio.h>

int main() {

int num1, num2;

printf("Enter the first number: ");

scanf("%d", &num1);

printf("Enter the second number: ");

scanf("%d", &num2)

if (num1 > num2) {

printf("The highest number is: %d\n", num1);

} else if (num2 > num1) {

printf("The highest number is: %d\n", num2);

} else {

printf("Both numbers are equal.\n");

}

return 0;

}

**Question 2**

#include <stdio.h>

int main() {

int num1, num2, num3;

int largest, smallest;

printf("Enter the first number: ");

scanf("%d", &num1);

printf("Enter the second number: ");

scanf("%d", &num2);

printf("Enter the third number: ");

scanf("%d", &num3);

largest = smallest = num1;

if (num2 > largest) {

largest = num2;

} else if (num2 < smallest) {

smallest = num2;

}

if (num3 > largest) {

largest = num3;

} else if (num3 < smallest) {

smallest = num3;

}

printf("Largest number: %d\n", largest);

printf("Smallest number: %d\n", smallest);

return 0;

}

**Question 3**

#include <stdio.h>

#include <stdlib.h>

int main() {

char name[15];

float bs, ns;

printf("Enter employee name: ");

scanf("%s", name);

printf("Enter employee basic salary: ");

scanf("%f", &bs);

printf("\n");

if (bs >= 10000) {

ns = bs + (bs \* 15 / 100);

}

else if (bs < 10000 && bs >= 5000) {

ns = bs + (bs \* 10 / 100);

}

else if (bs < 5000) {

ns = bs + (bs \* 5 / 100);

}

printf("%s's new salary is %.2f\n", name, ns);

return 0;

}

**Question 4**

#include <stdio.h>

int main() {

float radius;

float pi = 3.14159;

printf("Enter the radius of the circle: ");

scanf("%f", &radius);

float diameter = 2 \* radius;

float circumference = 2 \* pi \* radius;

float area = pi \* radius \* radius;

printf("Diameter: %.2f\n", diameter);

printf("Circumference: %.2f\n", circumference);

printf("Area: %.2f\n", area);

return 0;

}

**Question 5**

#include <stdio.h>

int main() {

int num1, num2;

printf("Enter the first integer: ");

scanf("%d", &num1);

printf("Enter the second integer: ");

scanf("%d", &num2);

if (num2 != 0 && num1 % num2 == 0) {

printf("%d is a multiple of %d\n", num1, num2);

} else {

printf("%d is not a multiple of %d\n", num1, num2);

}

return 0;

}

**Question 6**

#include <stdio.h>

int main() {

char ch;

printf("Enter a character: ");

scanf("%c", &ch);

printf("ASCII value of %c is %d\n", ch, ch);

return 0;

}

**Question 7**

#include <stdio.h>

int main() {

int basicSalary;

int yearsOfService;

char city;

int additionalAllowance = 0;

float bonus = 0.0;

float grossRemuneration;

printf("Enter the basic salary: ");

scanf("%d", &basicSalary);

printf("Enter the number of years of service: ");

scanf("%d", &yearsOfService);

printf("Enter the city (C for Colombo): ");

scanf(" %c", &city);

if (yearsOfService > 5) {

additionalAllowance = 0.1 \* basicSalary;

}

if (city == 'C') {

additionalAllowance += 2500;

}

if (basicSalary <= 25000) {

bonus = 0.1 \* basicSalary;

} else if (basicSalary <= 50000) {

bonus = 0.12 \* basicSalary;

} else {

bonus = 0.15 \* basicSalary;

}

grossRemuneration = basicSalary + additionalAllowance + bonus;

printf("Gross monthly remuneration: %.2f\n", grossRemuneration);

return 0;

}